

Communications Interoperability Outreach Workshop

Key Interoperability Issues

Public Safety Interoperable Communications (PSIC) Office Staff



Narrowbanding

NECP Goals

SCIP, Strategic Initiatives and Regional Planning

AIRS, CASM and TICPs



Andy Clark, PSIC Project Manager

NARROWBANDING

Narrowbanding

What Narrowbanding Is

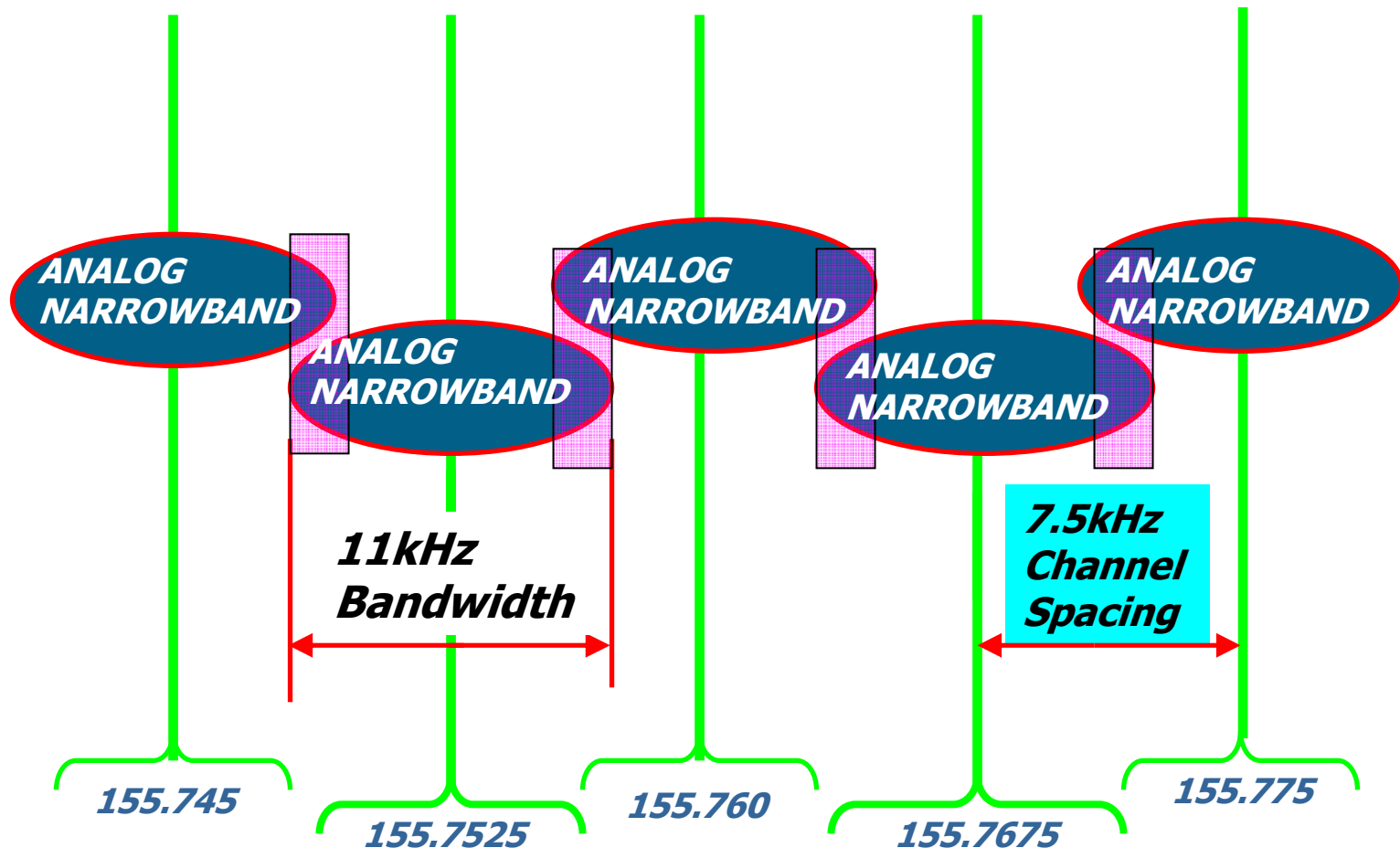
- Reduces channel spacing by 50%
- Reduces the emission bandwidth of a radio by 50% from 20kHz to 11 kHz
- Applies to VHF High Band (150-174 MHz) systems
- Applies to UHF (420 to 512 MHz) systems

What It Is Not

- Does not impact 700/800 MHz systems
- Does not impact Low Band VHF (30-50 MHz) systems
- Narrowbanding is *not* 800 MHz Rebanding

Time is Growing Short!

Analog voice with a 11kHz necessary bandwidth after all are narrowbanded





Why Narrowbanding?

- Narrowbanding was mandated by the FCC based on concerns about spectrum shortage:
 - January 1, 2011
 - » No new systems will be licensed to use Wide Bandwidth.
 - » No existing systems using Wide Bandwidth will be allowed to expand their licensed “Footprint”
 - » No manufacture or import of 25 kHz equipment
 - January 1, 2013
 - » ALL Systems must be operating in the Narrow Bandwidth Mode
- NPSTC (National Public Safety Telecommunications Commission) and LMCC (Land Mobile Communications Council)
 - Submitted suggested actions to CANCEL LICENSES that do not reflect narrowband emissions on January 1, 2013



What to do NOW

Educate Decision Makers

- Bring decision makers into the Planning Process
- Narrowbanding can be expensive!
- Only 1 to 2 Budget Cycles remain
- Some Grant Programs allow funding for narrowbanding

Start Planning

- Engage your Equipment Vendor
- Get your Service Shop on board
- Determine whether you need a consultant or can use existing staff



Implementation Planning

- Inventory your Radios to determine what needs to be upgraded / replaced
- Inventory your infrastructure – repeaters, base stations, satellite voting receivers / comparators, paging transmitters - to be sure they are narrowband capable
- Plan your Purchases, System reconfiguration / upgrades and plan for unintended risks and delays
- Talk to your Partners re: timing for reprogramming to maintain interoperability
- Review site engineering for adequate signal coverage, simulcast holes, fringe and in-building coverage



Questions regarding Narrowbanding

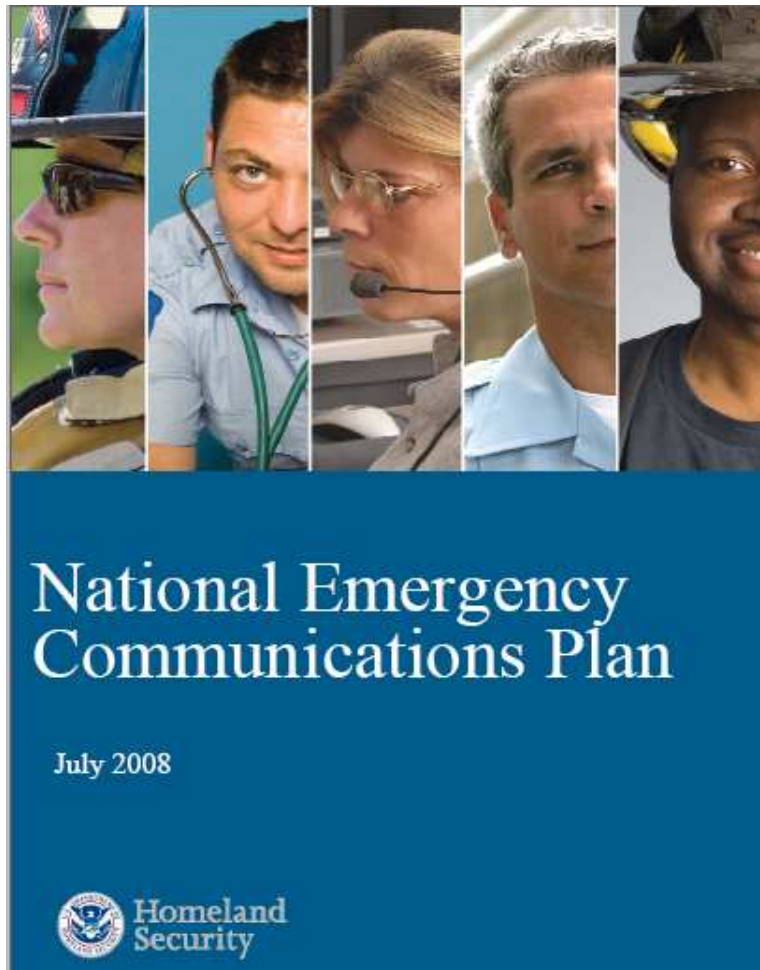


Michael Todd, PSIC Regional Interoperability Manager

NECP GOALS



National Emergency Communications Plan



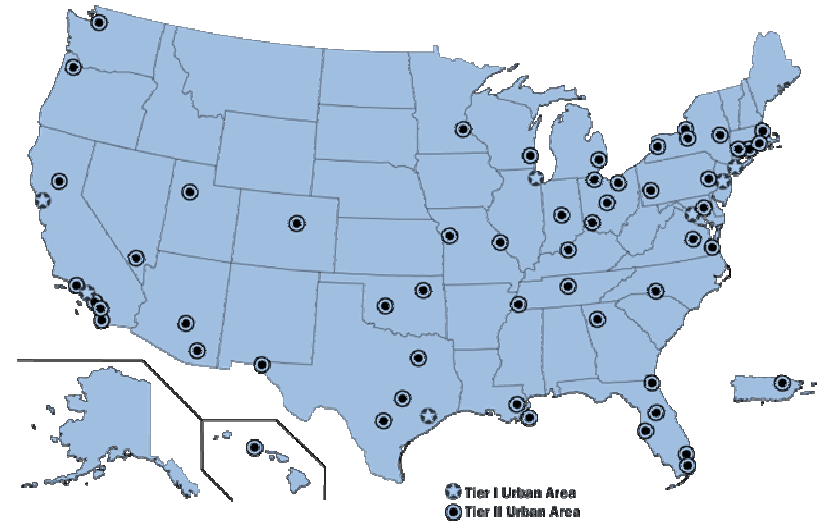
- The NECP is a strategic plan delivered to Congress by Federal Homeland Security in July 2008 as a plan for improving:
 - Interoperability
 - Operability
 - Continuity of communications
- The Plan is built around:
 - 3 Goals that set performance metrics
 - 7 Objectives that identify priorities
 - 92 milestone activities



NECP Goal and Timelines

- Key NECP Goal - Emergency response personnel can communicate
 - As needed, on demand, and as authorized
 - At all levels of government
 - Across all disciplines
- Specific timelines were set for jurisdictions to demonstrate successful Response Level Emergency Communications
 - Goal 1 – By 2010 – 90% of Urban Area Security Initiative Areas (UASIs) within one hour (*evaluation currently underway*)
 - Goal 2 – By 2011 – 75% of non-UASI jurisdictions within one hour
 - Goal 3 – By 2013 – 75% all jurisdictions re: significant events within three hours

- 60 UASI regions are being evaluated in the first six months of 2010
- OEC selected these Arizona events for evaluation:
 - Tucson: Aerospace and AZ Days Air Show at Davis-Monthan Air Force Base March 20th and 21st
 - Phoenix: The Subway Fresh Fit 600 NASCAR event on April 10th



Arizona DHS anticipates that federal DHS funding priorities will be linked to meeting NECP Goals

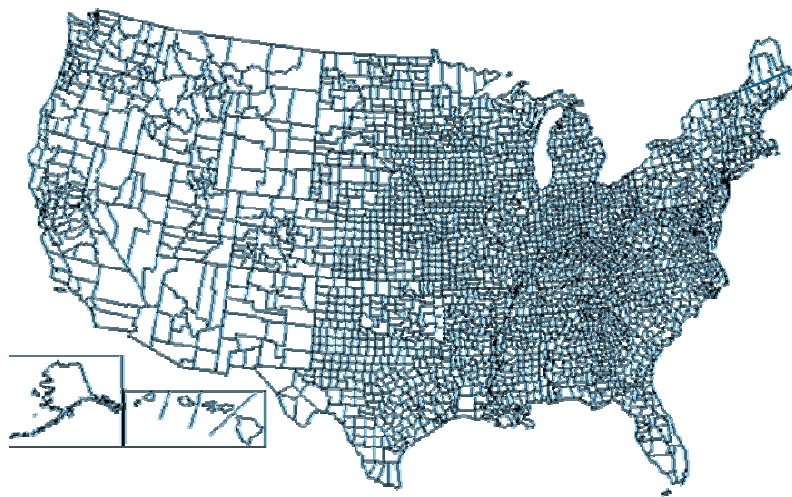


Challenges Identified in Goal 1 Evaluation Preparation

- 1) Lack of familiarization with ICS forms
- 2) Lack of familiarization with creating an IAP
- 3) Lack of ICS 217 forms in region
- 4) Frequency/Channel limitations
- 5) Lack of TIC-P
- 6) Use of 10-Codes or Coded Substitutions
- 7) Reluctance to establish Unified Command
- 8) Lack of acceptance of NECP goals as a way of doing business
- 9) Span of Control

NECP Goal 2 Evaluation

- Federal DHS is finalizing processes and materials related to Goal 2 Evaluations
- AZDOHS, PSIC and ADEM are informing stakeholders of requirements as they are established
- Three key areas to be evaluated: Common Policies & Procedures; Leadership Roles & Responsibilities; Quality and Continuity of Communications
- Our NECP Workshop this afternoon will further define Arizona's Goal 2 evaluation process



*All Non-UASI
Jurisdictions*

**Arizona DHS anticipates that
federal DHS funding priorities will
be linked to meeting NECP Goals**



NECP Goals

Questions regarding NECP Goals Overview

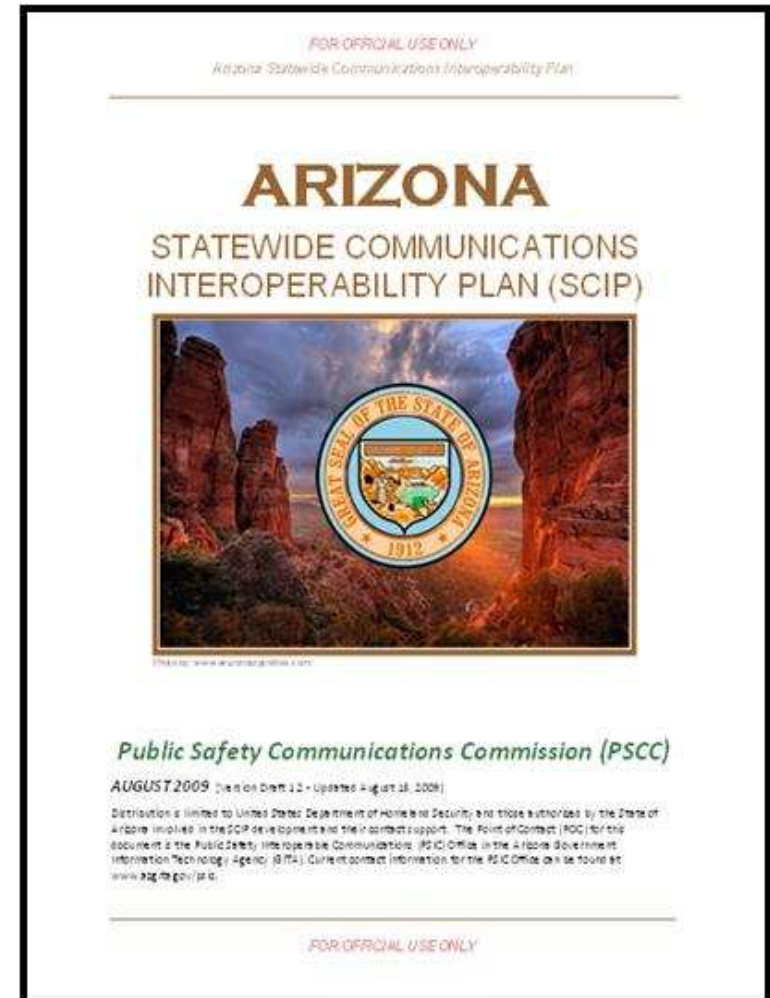
*[Note: Many More Details will be
Provided this Afternoon.]*



Justin Turner, PSIC Operations Manager

SCIP, STRATEGIC INITIATIVES AND REGIONAL PLANNING

- Each State is required to have a Statewide Communications Interoperability Plan (SCIP) to obtain Federal Homeland Security (DHS) funding.
- The SCIP must conform to DHS' Office of Emergency Communication (OEC) Criteria.
- Arizona did a complete update of its SCIP which was approved by PSCC on January 10, 2010.
- The SCIP addresses how Arizona will align with the National Emergency Communications Plan (NECP).





Strategic Initiatives

- Review of Strategic Initiatives Handout - 12 Initiatives and related Objectives
- Covers the subject areas: Governance, SOPs, Technology, Training/Exercise, Usage/Outreach
- Initiative #6 – Implement, Enhance and Promote Functional Regional Systems in Support of Interoperable communications
- Other Statewide Strategic Initiatives which regions should have regional initiatives about – Training Plan #10; Exercise Strategy #11; Outreach Plan #12



Interoperability Planning

Statewide

- The PSCC, SIEC and the PSIC Office work together to develop high level statewide strategy in the SCIP
- Focus is key strategic initiatives to move the entire State forward and to align with Federal requirements

Regional

- Regional Plans (RICPs) focus on the distinct requirements of each AZ region
- They focus on the strategic initiatives needed to move the Region forward in regard to interoperability.



Initiative # 6 - Regional Systems

- 1) Encourage partnerships in regional shared systems
- 2) Support the development of new regional shared systems
- 3) Provide enhancements to existing regional shared systems
- 4) Develop interoperability connections between regional shared systems.



Regional Responsibilities

- Develop a Regional Interoperable Communications Plan (RICP)
 - Region clearly identifies interoperability requirements/gaps
 - Region develops a regional approach to filling those needs/closing those gaps
- Obtain consensus on regional interoperability projects to advance RICP initiatives
- Develop documentation in support of managing interoperable assets:
 - Tactical Interoperable Communication Plans (TICPs)
 - Inventory in the Communications Asset and Mapping tool (CASM)



Additional Regional Activities

- Build collaborations with another county, neighboring jurisdiction, DPS, DEMA, etc.
 - Funding opportunities encourage collaboration
 - Resource sharing allows a region to do more with less
- Develop a process to allow collective purchasing
- Develop MOUs that address sharing of regional resources
- Develop Standard Operating Procedures (SOPs)
- Develop or Enhance the communication aspects of Regional Training and Exercise Plans
- Keep regional leadership informed of progress



SCIP, Strategic Initiatives & Regional Planning

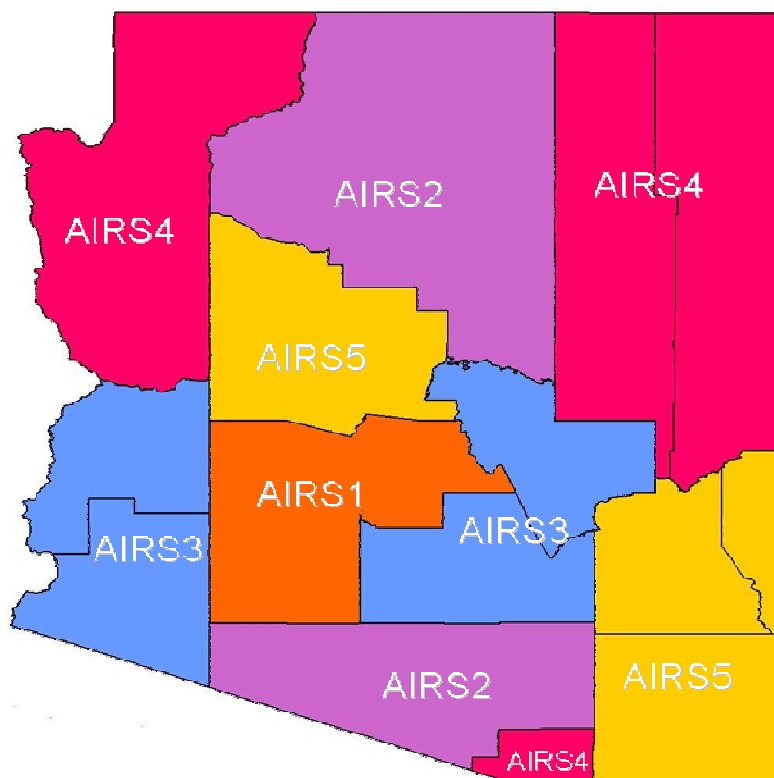
Questions regarding SCIP, Strategic Initiatives & Regional Planning

Emilie Sundie, PSIC Project Manager

AIRS AND CASM/TICPS



AZ Interagency Radio System



AIRS1 – 141.3 Hz

AIRS2 – 131.8 Hz

AIRS3 – 110.9 Hz

AIRS4 – 123.0 Hz

AIRS5 – 167.9 Hz

AIRSAZ VHF – 156.7 Hz

AIRSAZ UHF – 100.0 Hz

AIRSAZ 800 MHz – 156.7 Hz

- A suite of full-time, cross-banded (i.e. VHF, UHF, and 800MHz) mutual-aid channels designated specifically for multi-agency use across the State
- Limited to one frequency pair per band for the entire state
- Provides interoperable communications capability to first responders and others performing public safety or public service activities.

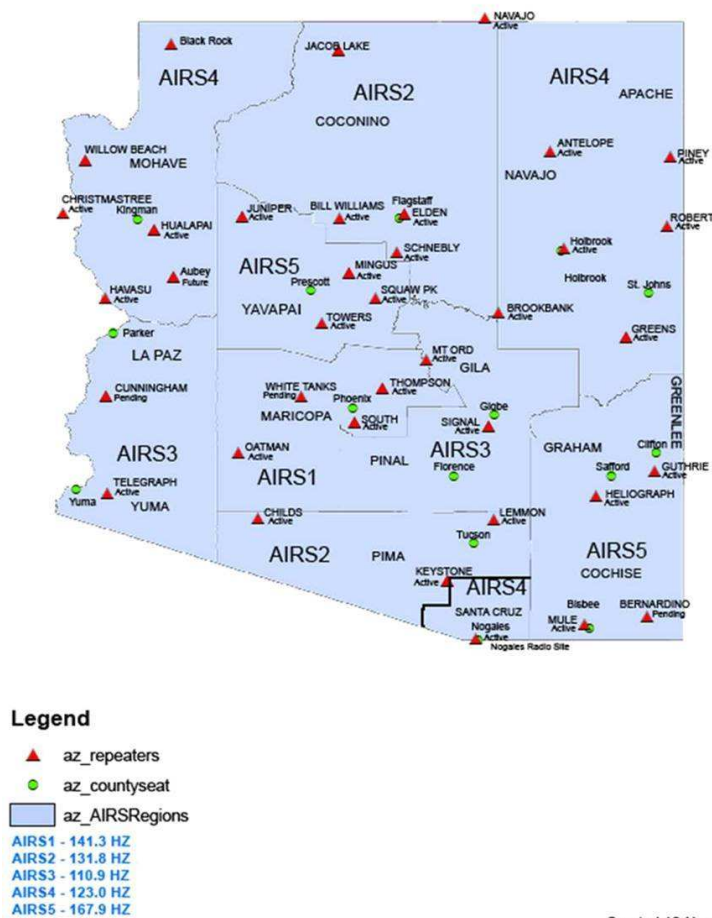


History of AIRS

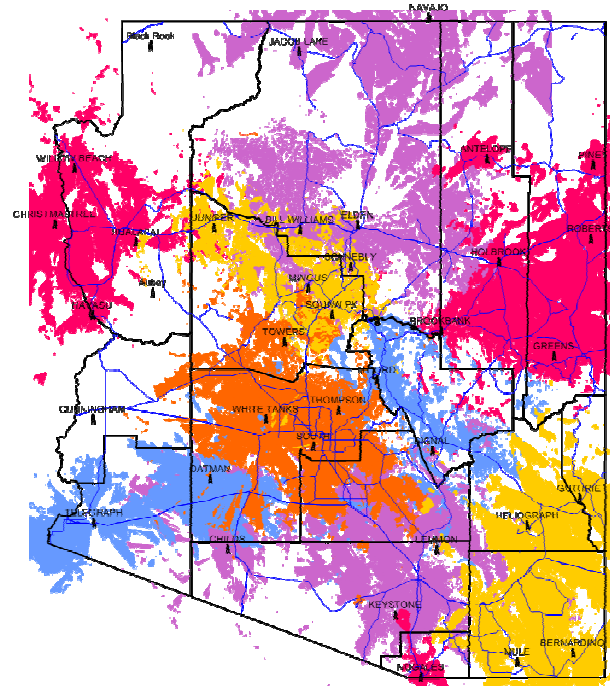
- Mid-1970s – interagency communication for law enforcement agencies – DPS and Sheriffs (UHF/VHF).
- Next 20 years – AIRS grew to fifteen sites - identified as a valuable all-hazards resource.
- By 2006 - federal grant funds allowed modernization – more sites (currently 33), 800 MHz band added, VHF system changed from simplex to repeater, most sites voted.
- Present - continue to improve coverage, reduce interference and support multi-agency, multi-disciplinary and multi-jurisdictional activities.

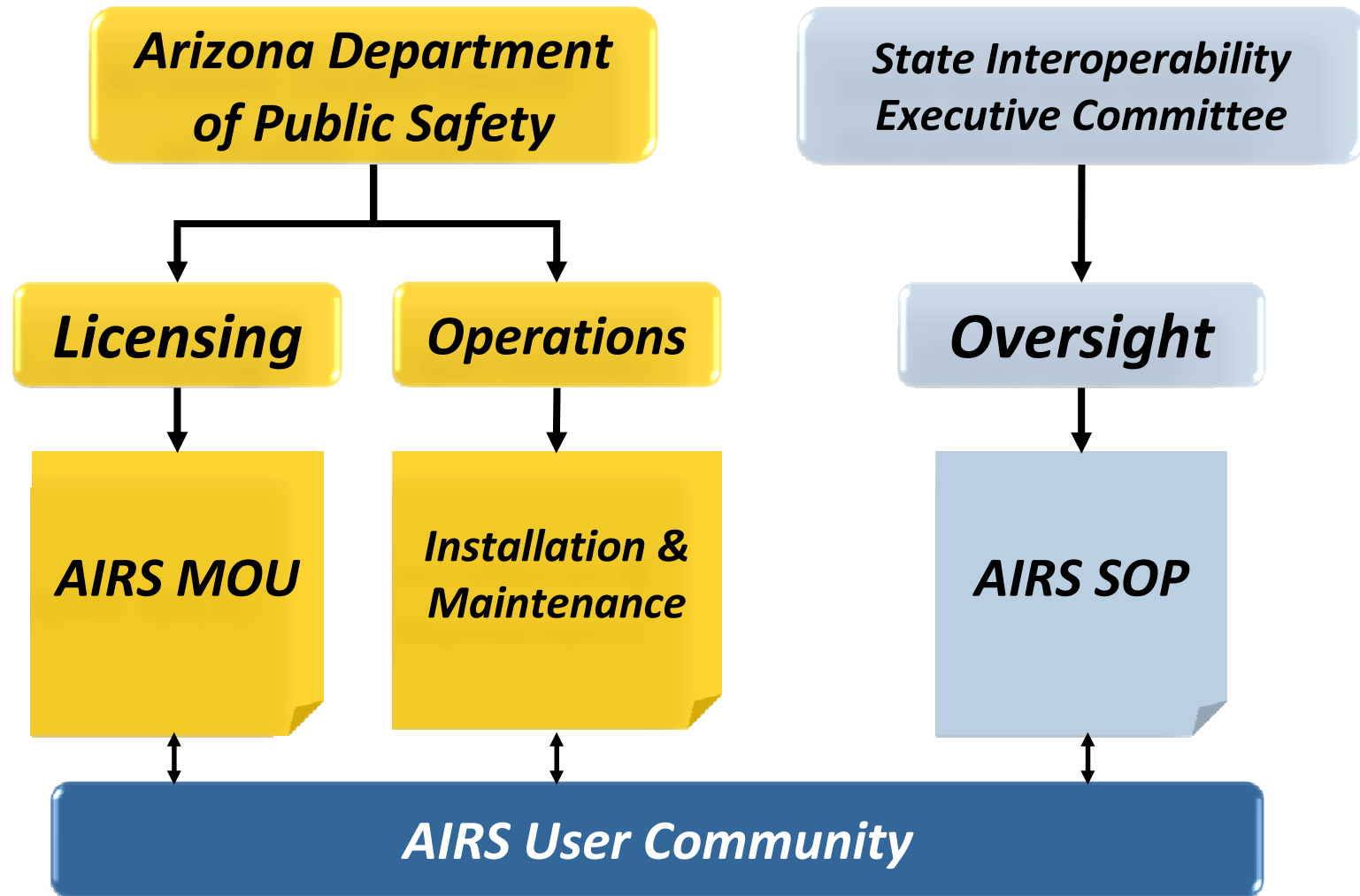


AIRS Suite Locations & Coverage



Created 13-Nov-2009







Recent AIRS Activities

- AIRS Standard Operating Procedure (SOP) developed and approved by the PSCC/SIEC
- Outreach efforts focus on encouraging:
 - Written agreements, e.g. monitoring MOUs
 - Testing of AIRS
 - Exercises using AIRS as an interoperability resource
- Process being established for bringing AIRS issues to the SIEC for resolution
- AIRS Training Program under development to include a training video and NIFOG insert



AIRS Support Needed

- Monitoring commitments from agencies in every AIRS region
- Growth in number of agencies able to dispatch over AIRS via control stations
- Incorporation of AIRS into Interoperability Exercises
- Regular Testing
- Training (using materials currently under development)



Questions regarding AIRS



CASM Overview

CASM is provided by the US Dept of Homeland Security, Office of Emergency Communications through the Inter-operable Technical Assistance Program (DHS/OEC ICTAP)

Use of CASM is included in Arizona's SCIP Strategic Objective 1.3

Arizona is adopting the use of CASM to collect and maintain information on Public Safety/First Responder communications

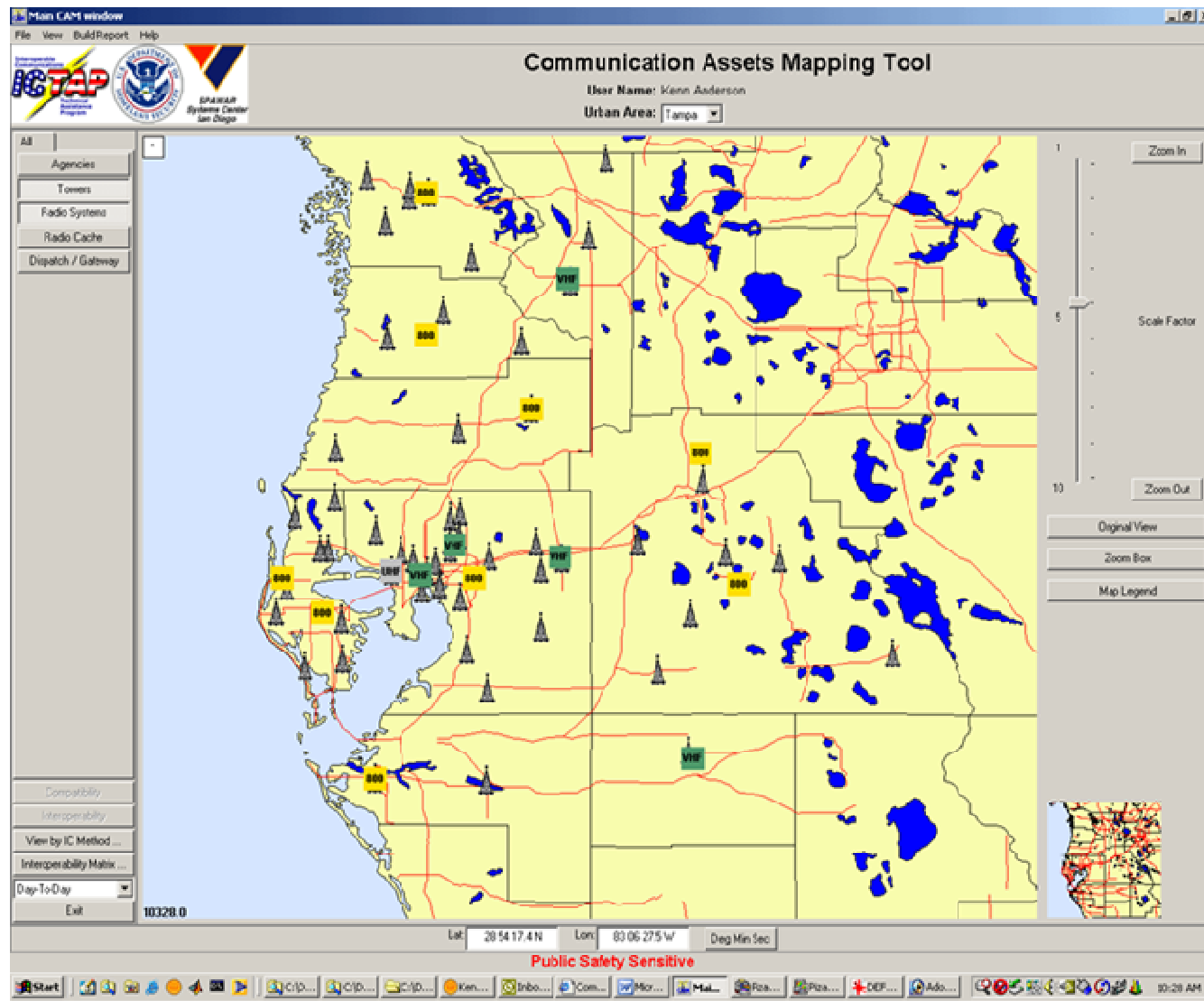


CASM Purpose

- Provide an easy to use, web-based tool to support interoperable communications analysis
 - A single repository to facilitate information sharing
 - Communication assets inventory assessment (agency, region, statewide)
 - Inter-agency interoperability analysis
 - Tactical Interoperability Communication Plan (TICP) interface
 - Enables evaluation of an agency's "Need vs. Ability" to communicate

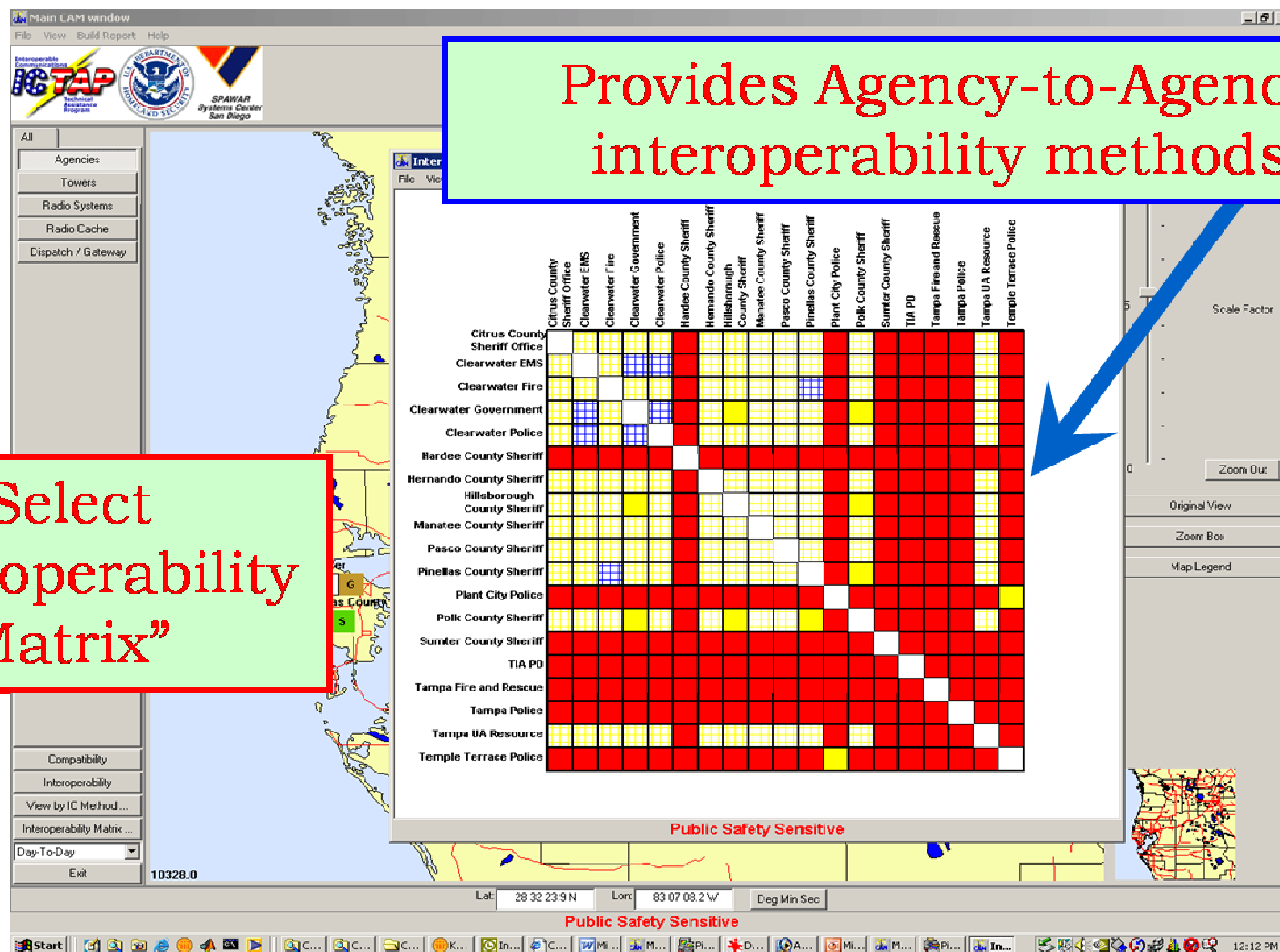


Asset Mapping (*Simulated*)





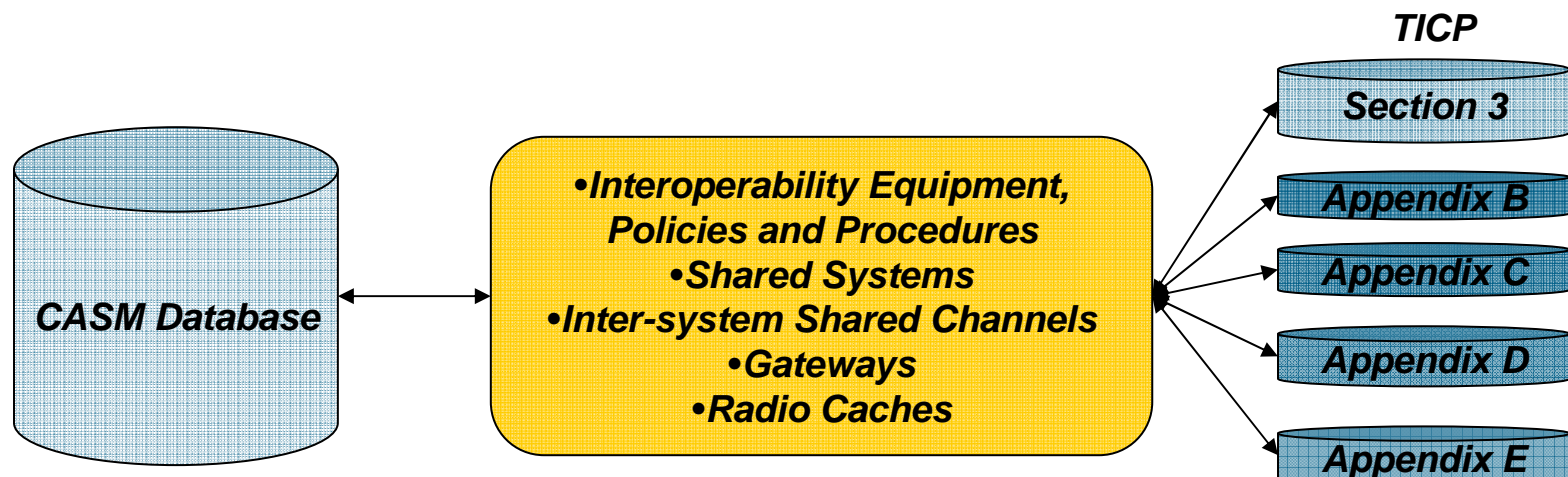
Agency-to-Agency Interoperability



Select
"Interoperability
Matrix"

Provides Agency-to-Agency
interoperability methods

- For jurisdictions with TICPS, data from TICPs can be input to CASM by populating templates and submitting them to the CASM team for uploading
- Jurisdictions who populate CASM can generate a pre-formatted report with information for part of the TICP - Section 3 and Appendixes B-E



A Tactical Interoperable Communications Plan

- Documents
 - Interoperable communications governance structures
 - Technology Assets
 - Usage Policies and procedures
- Defines
 - Breadth and scope of interoperable assets available in the area
 - How the assets are shared
 - How the use of the assets is prioritized
 - The steps individual agencies should follow to request, activate, use and deactivate each asset

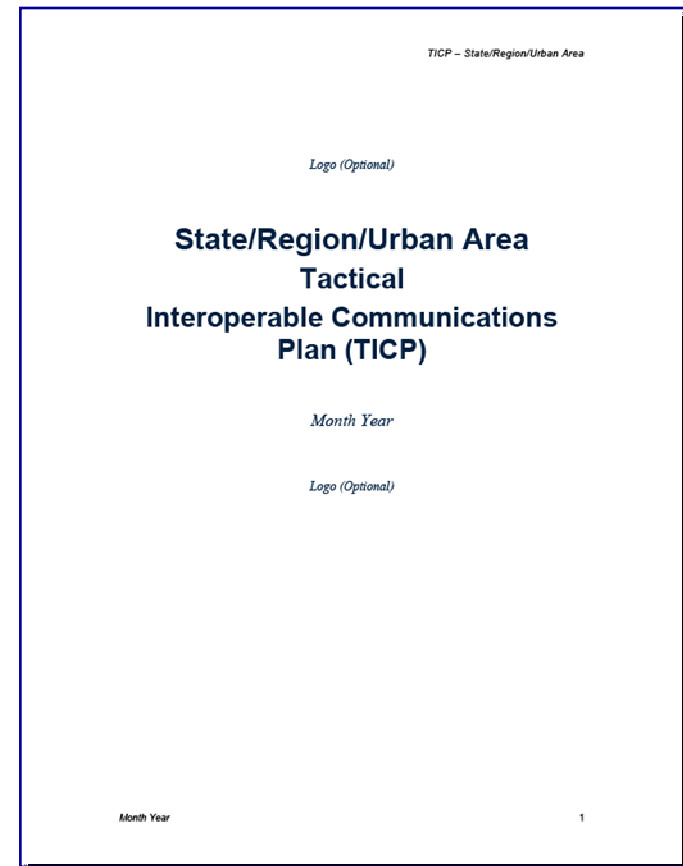


TICP Template from the DHS SAFECOM Program

Overview

The TICP Template available from OEC's SAFECOM Program provides a description of the standard structure of a TICP and the relevant sections to be populated according to the unique needs of an urban area, county, region, state/territory, tribe or Federal department/agency.

www.safecomprogram.gov



- These tools enable:

- Understanding of the level of interoperability between agencies/regions
- Identification of interoperability gaps
- Information with which to create Investment Justifications / Funding Requests
- Development of plans to close gaps and improve interoperability



Questions regarding CASM/TICPS

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HOW DO WE GET THE WORD OUT ABOUT THESE KEY INITIATIVES?

BREAKOUT DISCUSSIONS